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Author/Editor:

J4:323518 Development of solid **lubricants** for high temperature rolling ceramic bearing. II. Ternary system solid A **lubricants** composed of **CaF2** + **BaF2**, and V Cr2O3. Toyota, Hiroshi; Yoshioka, Takeo; Umeda, Kazunori; Niizeki, Shin; Kaneko, Toshiaki; Itakura, Takashi (Res. Dev. Div., Koyo Seiko P Co., Ltd., Kashiwara, 582, Japan). Toraiborojisuto, 41(2), 146-53 (Japanese) 1996. CODEN: TORAEO. ISSN: 0915-1168.

Year of Publication:

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Remarks:

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56240-61-0, 1,1,3,3-Tetrachlorodisiloxane 64735-34-8, Tungsten fluoride oxide (WF3O) 106563-15-9 146956-38-9, Titanium bromide 176788-92-4, Calcium silver chloride (CaAg2Cl4)
(for prepn. of oxides using disiloxanes)
IT 1303-58-8P, Gold oxide (Au2O3) 1304-56-9P, Beryllium oxide 1305-78-8P, Calcium oxide, preparation 1306-19-0P, Cadmium oxide, preparation 1307-96-6P, Cobalt oxide (CoO), preparation **1308-38-9P, Chromium oxide**, preparation 1309-48-4P, Magnesium oxide, preparation 1312-81-8P, Lanthanum sesquioxide 1313-27-5P, Molybdenum trioxide, preparation 1313-59-3P, Sodium oxide, preparation 1313-99-1P, Nickel monoxide, preparation 1314-13-2P, Zinc oxide, preparation 1314-23-4P, Zirconium dioxide, preparation 1314-35-8P, Tungsten trioxide, preparation 1314-36-9P, Yttrium sesquioxide, preparation 1314-61-0P, Tantalum pentoxide 1314-62-1P, Vanadium pentoxide, preparation 1317-38-0P, Cupric oxide, preparation 1344-28-1P, Alumina, preparation 11113-84-1P, Ruthenium oxide 12035-82-4P, Platinum monoxide 12055-23-1P, Hafnium dioxide 12057-24-8P, Lithium oxide, preparation 12060-08-1P, Scandium sesquioxide 12136-45-7P, Potassium oxide, preparation 12164-77-1P, Neodymium pentoxide 12624-27-0P, Rhenium oxide 12645-46-4P, Iridium oxide 12680-36-3P, Rhodium oxide 13463-67-7P, Titania, preparation 20667-12-3P, Silver oxide 21908-53-2P, Mercury oxide 50926-11-9P, Indium tin oxide 61970-39-6P, Osmium oxide
(prepn. using disiloxanes)

L98 ANSWER 4 OF 38 HCA COPYRIGHT 1997 ACS
124:323518 Development of solid **lubricants** for high temperature rolling ceramic bearing. II. Ternary system solid **lubricants** composed of **CaF2** + **BaF2**, and Cr2O3. Toyota, Hiroshi; Yoshioka, Takeo; Umeda, Kazunori; Niizeki, Shin; Kaneko, Toshiaki; Itakura, Takashi (Res. Dev. Div., Koyo Seiko Co., Ltd., Kashiwara, 582, Japan). Toraiborojisuto, 41(2), 146-53 (Japanese) 1996. CODEN: TORAEO. ISSN: 0915-1168.

AB The solid **lubricants** and binder of Ni-based alloy of Ni-23.2 Co-17.0 Cr-12.5 Al-0.5 Y were formed through plasma injection under low pressure upon Ni-Cr alloy (Inconel 713). Ratio of **CaF2**+**BaF2**:Cr2O3 were between 40/60 and 60/40, and ratio of the solid **lubricants**: binder were between 10:90 and 40:60. Contact part of the retainer were examd. with SEM and EPMA after the test of 1000 rpm (2.2 m/s) at 800 .degree.C under load of 4.9 N between retainer and roller and 200 N between roller and ring. The friction characteristics of the solid **lubricants** between RT and 900 .degree.C were examd. with the high temp. reciprocating friction and abrasion tester, and the layers of **lubricants** were examd. using high temp. X-ray diffraction. The formation of BaCrO4 were obsd. above 700 .degree.C.

CC 57-2 (Ceramics)
Section cross-reference(s): 56

ST inorg solid **lubricant** rolling ceramic bearing; barium

Request for Translation submitted 10/7/97

Calcium fluoride chromia solid **lubricant** bearings
(roller, ceramic; development of **CaF2-BaF2** -Cr2O3 solid **lubricants** for high temp. rolling ceramic bearings)
IT **Lubricants**
(solid, development of **CaF2-BaF2**-Cr2O3 solid **lubricants** for high temp. rolling ceramic bearings)
IT **118889-98-8**
(binder, solid **lubricant**; development of **CaF2** -**BaF2**-Cr2O3 solid **lubricants** for high temp. rolling ceramic bearings)
IT 10294-40-3, Barium chromate (BaCrO4)
(formation of, from solid **lubricant** in friction; development of **CaF2-BaF2**-Cr2O3 solid **lubricants** for high temp. rolling ceramic bearings)
IT **1308-38-9**, **Chromium oxide** (Cr2O3), uses
7787-32-8, **Barium fluoride** (**BaF2**) **7789-75-5**, **Calcium fluoride** (**CaF2**), uses
(solid **lubricants**; development of **CaF2-BaF2**-Cr2O3 solid **lubricants** for high temp. rolling ceramic bearings)

L98 ANSWER 5 OF 38 HCA COPYRIGHT 1997 ACS
124:131039 **Composite** film of glass fabric, fluorine-containing resin, its manufacture, and light interference film. Komatsu, Yasuo; Okumura, Haruichiro; Negishi, Takao (Toray Industries, Japan). Jpn. Kokai Tokkyo Koho JP 07299885 A2 951114 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 94-94961 940509.
AB The title **composite** film, suitable for use in a house structure, wall and roof, is composed of a glass fabric and a F-contg. resin, and has a light interference film formed on .gtoreq.1 side. The F- contg. resin comprises .gtoreq.1 copolymer selected from tetrafluoroethylene-hexafluoropropylene, tetrafluoroethylene-ethylene, and tetrafluoroethylene-perfluoroalkyl vinyl ether copolymers. The interference film may be a transparent metal film, prepd. by vapor deposition, composed of .gtoreq.1 compd. selected from SiO, SiO2, In2O3, TiO2, In2O3/SnO2, **MgF2**, Al2O3, and Cr2O3. The light interference film may be a laminate of the transparent metal film and a reflective metal film with av. reflectance .gtoreq.60% in visible, composed of a metal selected from Al, Cu, Ag, Mg, Ti, Ni, Co, Au, Cr, Pe (sic), and Rh. The light interference film may be a laminate of the reflective metal film, the transparent metal film, and a translucent film with av. reflectance in visible radiation area <60% composed of .gtoreq.1 metal selected from Al, Cu, Ag, Mg, Ti, Ni, Co, In, Cr, Si, Au, and Au/Pt.
IC ICM B32B017-10
ICS B32B007-02; B32B027-30; C23C014-06; C23C014-08; C23C014-14
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related